

Q<sub>1</sub> this end, the control device provided for synchronizing the motors contains a control program  
Concl. which can be activated in the event of a web break and has a steep emergency stop ramp which  
leads to a standstill, at least within a few revolutions. By means of this program, in the event of a  
web break, the motors are driven so that they are braked abruptly along the emergency stop  
ramp.--

IN THE CLAIMS:

Claim 8 is amended as follows:

~~8.~~ (Amended) Apparatus as in claim 7 wherein each said cylinder is  
driven by a respective said drive motor.--

REMARKS

The amendments address clerical errors found on reviewing the application.

Claims 1, 7, 8, and 11 stand rejected under 35 U.S.C. §102 as being anticipated by  
Paul GB 2,337,484. This rejection is traversed for the reasons following:

Paul relates to a printing machine having a series of printing mechanisms which act  
serially on a web being printed. In Figure 1, these mechanisms 1-7 are each shown having four  
cylinders, but there is no suggestion that cylinders in any one mechanism are driven by a plurality of  
motors, or that each cylinder is driven by a respective motor. It is entirely possible that each  
printing mechanism is driven by a single motor, the cylinders being connected by gears.

In event of a web tear, Paul teaches that first and second cylinders following the  
web tear are braked *with a time delay*, and that first and second cylinders behind the web break are  
braked synchronously with those following the web break, thereby having the same time delay  
between successive cylinders. This is described in a very difficult paragraph at page 2, lines 8-23; it

is also described at page 3. Note in particular the passage at page 3, line 8-14 which refers to decreasing rotational speeds at first, third, and fifth printing mechanisms, followed by braking the second, fourth and sixth mechanisms after a *fixed time delay* (line 12). "Due to the braking command being initiated at different times, between two successive printing mechanisms, an extremely high increase in web tension arises, which leads to a web tear." (lines 12-14).

Simply stated, Paul teaches braking the odd mechanisms ahead of the even mechanisms, so that the web breaks up into little pieces which do no harm. Odds are synchronized with odds, and evens with evens, but odds are not synchronized with evens.

Applicant's claims 1 and 7 recite method and apparatus in a rotory printing machine having cylinders which roll on one another in a print-on position, so it is clear that the invention relates to a single printing mechanism, as that term is used by Paul. Yet there is nothing in Paul to suggest plural motors in a single mechanism, nor of braking the motors to a standstill in a jerking stop when a web break is detected.

From the foregoing it is clear that Paul does not anticipate any of claims 1, 7, 8, and 17.

Claims 2 and 3 stand rejected as obvious over Paul; this too is traversed.

The examiner states that it would be obvious to one having ordinary skill in the art to modify the teachings of Paul to optimize the speed at which the cylinders are being stopped. However, this is not suggested by Paul. On the contrary, Paul implicitly recognizes that the cylinders cannot be immediately braked due to their momentum. This is why Paul resorts to slowing down the cylinders with a time delay between cylinders, so that the web brakes up. If Paul could see any way to bring the cylinders to jerking stop within five or two revolutions, his inventive control scheme utilizing a time delay would not be necessary.

In sum, Paul teaches away from immediate braking. Such a modification would completely change the principle of operation of Paul, and is therefore not sufficient to establish a prima facie case of obviousness. In re Ratti, 123 USPQ 349 (CCPA 1959).

Claims 4, 6, 10, and 12 stand rejected under 35 U.S.C. §103 as being obvious over Paul in view of Hammond U.S. 6,262,555, the latter being cited for its disclosure of braking an inductive motor by applying different frequencies. This rejection is traversed for like reasons as the rejection of claims 2 and 3. That is, Paul teaches a control scheme which teaches away from rapid braking. Paul addresses the problem of web "wind-up" and other problems which occur after a primary web break by braking the printing mechanisms with a time delay between groups. The propounded combination with Hammond would require a complete re-design of Paul's mechanisms and would render Paul's control scheme unnecessary.

The claims being definite and clearly patentable over the art of record, withdrawal of rejections and early allowance are solicited. Should any objections remain, a call to the undersigned is requested.

It is believed that no fees or charges are required at this time in connection with the present application; however, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,  
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Dated: October 3, 2002

## AMENDMENTS TO THE SPECIFICATION AND CLAIMS SHOWING CHANGES

### IN THE SPECIFICATION:

The paragraph beginning at page 3, line 6, has been rewritten as follows:

--This object is achieved, in a web-fed rotary printing machine having a plurality of cylinders rolling on one another, by providing a plurality of motors assigned to the cylinders, which motors can be synchronized by means of an associated control device and which, in the event of a web break, can be braked abruptly to a standstill, at least within a few revolutions. To this end, the control device provided for synchronizing the motors contains a control program which can be activated in the event of a web break and has a steep emergency stop ramp which leads to a standstill, at least within a few revolutions. By means of this program, in the event of a web break, the motors are driven so [hat] that they are braked abruptly along the emergency stop ramp.--

### IN THE CLAIMS:

Claim 8 have been amended as follows:

--8. (Amended) Apparatus as in claim 7 wherein each said cylinder is driven by a respective said drive [cylinder] motor.--